



PURPOSE

The Aquapack packaging machines produced by Proffico are designed to pack drinking water in plastic bags. The idea of the packaging machine has been taken from the experience of Swiss and German companies, which install such equipment at the main water treatment plants. Packaging machines are especially suitable in case of failure of water supply systems or other emergency situations, because they provide a guarantee of continuity of bacteriologically safe water supply. The solutions used so far, i.e. water transport in cisterns and barrels, have in most cases been problematic because, due to the unpredictable departure date (e.g. network failure), it is not possible to ensure adequate water quality. For the water from the cistern to be drinkable and meet the requirements set out in the Regulation of the Minister of Health on the quality of water intended for human consumption, it is necessary to systematically carry out time-consuming disinfection of the tank - which, for obvious reasons, is not possible in an emergency situation.



RANGE OF APPLICATIONS

The Aquapack packing machines can supply drinking water bags in case of:

- a failure of the water supply system,
- identification of secondary water contamination in the water supply network,
- natural disasters (floods),
- freezing / damaging connections,
- organization of mass events.

THE QUALITY AND DURABILITY OF PACKAGED WATER

Aquapack packaging machines can be installed at a local water treatment plant or in any other suitable location with access to the water supply network. The bags are packed with tap water that meets the requirements of the Regulation of the Minister of Health on the quality of water intended for human consumption. The shelf life of water packed in plastic bags should not exceed 6 months and the bags themselves should be stored in a dry, dark and cool room.



ECOLOGY

RECYCLABLE FOIL

Water bags are made of 100% top quality polyethylene. This material is fully recyclable and can be recycled many times for other products. It is exactly the same material from which water pipes supplying water to the customers are made and food storage containers are produced. The film for bags has a relevant Polish National Institute of Hygiene certificate for contact with drinking water and its release was preceded by laboratory tests, among others for the possibility of creating a biofilm. The European Union's ban on the sale of disposable goods (straws, cutlery, etc.) does not apply in any way to food packaging, including water bags. In order to strengthen the company's image, it is proposed to place a recycling label on the bag, which will prove the water supply company's ecological approach to reducing the amount of waste generated.



BIODEGRADABLE FOIL

The Aquapack packaging machines are also suitable for storing water in bags of biodegradable foil. Organic biodegradable and compostable foil is produced from bio-based raw materials - polymers from e.g. renewable raw materials and special additives certified according to DIN EN 13432 and ASTM D6400 (e.g. potato starch). The foil decomposes in the environment, can be processed with organic waste in composting plants and the obtained compost is used, among others, in agriculture. Biodegradation of plastics (composting) has a positive impact on the environment by reducing the plastic waste deposited in landfills.



AQUAPACK PACKING MACHINE 2.1

The Aquapack packing machine 2.1 is the most efficient model. It is made of stainless materials and its design ensures the microbiological purity of the product. Both the drinking water and the packaging foil are subject to continuous disinfection - ultraviolet radiation. Machine control and adjustment of settings (capacity and dosage) are carried out by means of the SIEMENS controller from the operator's panel, which additionally displays information about the machine's operating status. The applied automatic dating device allows to determine the date of production or shelf life of packaged water.

The Aquapack packing machine 2.1 is equipped with an air compressor that supplies air with the correct parameters for the pneumatic system of the packaging machine.

TECHNICAL SPECIFICATION

Manufacturer, type:	Proffico Aquapack 2.1,
Hygiene certificate for drinking water:	yes,
Packaged product:	water,
Batch size:	adjustable up to 1.5 dm ³
Capacity:	approx. 1,500 bags/h
Foil width:	310 mm,
Foil thickness:	0.09 – 0.1 mm,
Diameter of foil roll:	max. 400 mm,
Water pressure:	min. 3 bar,
Average cooling water consumption:	approx. 0.05 m ³ /h,
Average compressed air consumption:	approx. 18 m ³ /h,
Power requirement:	2.5 kW,
Supply voltage:	400 V,
Water disinfection:	UV,
Foil disinfection:	UV,
Bag conveyor:	yes, approx. 1.5 m,
Compressor:	capacity: 360 l/min; tank capacity 50 l; engine power 2,5 hp, 230 V; 50 Hz; operating pressure: 6 bar; max pressure: 8 bar; number of compression stages 1; 1 cylinder,
Performed operations:	unwinding the foil from the roll, dating, forming and longitudinal welding of the foil into a bagless sleeve, dosing water, closing the bag, transporting the bag into transport containers,
Size /without power supply:	approx. 975 x 1050 x 2040 mm,
Weight:	approx. 620 kg,
Operation:	1 person.



INSTALLATION REQUIREMENTS

Installation room:	space min. 15m ² in a shape ensuring rational location and operation of the unit, entrance door allowing to insert the unit, room with ventilation, heating, drain,
Electricity:	400 V - 50 Hz (25 A protection),
Drinking water:	capacity up to 5m ³ /h pressure min. 2 bar,
Compressed air:	pressure 6 bar (solid), approx. 18 m ³ /h.

AQUAPACK PACKING MACHINE 2.2

The Aquapack packing machine 2.2 is also manufactured from materials that ensure the microbiological purity of the product and the fittings and components used come exclusively from reputable manufacturers. Both the drinking water and the packaging foil are subject to continuous disinfection - ultraviolet radiation. The machine is controlled from the control panel and the settings (capacity and output) are adjusted manually. Used automatic dating device allows to determine the date of production or shelf life of packaged water.

TECHNICAL SPECIFICATION

Manufacturer, type:	Proffico Aquapack 2.2,
Hygiene certificate for drinking water:	yes,
Packaged product:	water,
Batch size:	adjustable from 0.5 to 1,0 dm ³ ,
Capacity:	1200 to 1500 bags/h,
Foil width:	320 mm,
Foil thickness:	approx. 0,08 – 0,1 mm,
Diameter of foil roll:	max. 330 mm,
Water pressure:	stabilized 2 - 3 bar,
Power requirement:	approx. 2.9 kW,
Supply voltage:	400 V,
Water disinfection:	UV Wedeco,
Foil disinfection:	UV,
Chemical disinfection:	yes - peristaltic pump combined with a flow meter, 5l solution tank, injector,
Water filter:	yes, 0.5 µm,
Colors:	natural stainless steel, RAL 7035, RAL 3020,
Bag conveyor:	yes, approx. 1.5 m,
Performed operations:	unwinding the foil from the roll, dating, forming and longitudinal welding of the foil into a bagless sleeve, dosing water, closing the bag, transporting the bag into transport containers,
Size /without power supply:	approx. 1080 x 1050 x 2040 mm,
Weight:	approx. 500 kg,
Operation:	1 person.



INSTALLATION REQUIREMENTS

Installation room:	space min. 15m ² in a shape ensuring rational location and operation of the unit, entrance door allowing to insert the unit, room with ventilation, heating, drain,
Electricity:	400 V - 50 Hz (25 A protection),
Drinking water:	capacity up to 5 m ³ /h, stabilized pressure 2-3 bar.

AQUAPACK PACKING MACHINE 2.3

The packaging machine is designed for manual packaging of drinking water in bags with a capacity of 1.0 dm³ to 15 dm³. The housing of Aquapack 2.3 is made up of a frame made of sections enclosed and powder coated. At the back of the frame there is a water preparation unit for packaging, consisting of: main valve, reducer with the possibility of reducing input pressure, water filter, UV lamp for water disinfection, disinfection chamber for plastic bags and control cabinet. The front part of the unit is a worktop with a drip tray made of stainless steel, built on a lockable cabinet. On the right side of the worktop there is a printer unit for the production of stickers for foil bags, which inform about the shelf life of water. In the cabinet under the worktop in the central part there is a handy storage for plastic bags, with the possibility of UV disinfection. In the cabinet on the right side there is a plastic container for leachate from the drip tray, which can be disassembled during emptying.

TECHNICAL SPECIFICATION

Manufacturer, type:	Proffico Aquapack 2.3,
Hygiene certificate for drinking water:	yes,
Packaged product:	water,
Bag capacity [dm ³]	2, 5, 10, 15,
Capacity:	approximately 240 bags 1 dm ³ /h,
Bag type:	Ready-made sack with a self-closing valve,
Foil thickness:	approx. 0.1 mm,
Water pressure:	stable in the range 2.0 ÷ 5.0 bar,
Average power consumption:	150 W,
Supply voltage:	230 V / 50 Hz ± 10% (PN-IEC 60038),
Water disinfection:	UV Wedeco,
Foil disinfection:	UV,
Chemical disinfection:	option - peristaltic pump combined with a flow meter, 5 l solution tank, injector,
Water filter:	yes, 0.5 µm,
Color:	natural stainless steel, RAL 7035, RAL 3020,
Dimensions:	approx. 2010 x 1100 x 1050 mm (H, W, D)
Dimensions with a auxiliary table:	approx. 2010 x 1530 x 1050 mm (H, W, D),
Weight:	approx. 280 kg,
Operation:	1 person.

INSTALLATION REQUIREMENTS

Installation room:	the packaging machine is a free-standing unit that does not require foundation and fixing with foundation bolts; the unit is intended to be installed indoors where the temperature exceeds 2°C; it shall be placed on an even floor, at a minimum distance of 1,5 m from the walls to ensure free operation; the room shall have an entrance door through which the unit can be placed; the room shall have ventilation, heating,
Electricity:	230 V - 50 Hz (25 A protection),
Drinking water:	capacity up to 5 m ³ /h, stabilized pressure 2.0 ÷ 5.0 bar.



TRANSPORT OF BAGS

Aquatrans trailers are designed to transport bags of drinking water to the place of the final recipient. Aquatrans has drawers with snap fasteners and a thermal casing, thanks to which the temperature of water and its taste are not deteriorated. Transportation in such trailers is completely safe, with proper cleanliness and aesthetics.

The trailer is a self-supporting structure, on a single-axle chassis, adapted for pulling by a passenger car equipped with a towing hook. Aquatrans has an approval certificate allowing it to be registered and used in accordance with the law in force (the approval applies to the whole trailer in terms of its function and is not limited to the chassis). Under the thermal insulation lining there is a specially designed stainless steel grid with 36 boxes in which water bags are placed. The boxes are made of plastic, are ergonomic and comfortable to use. Special locks placed on the side walls of the grid are made to prevent any movement of the boxes during transport.



The left and right side of the trailer is equipped with aluminium roll-up blinds, which are locked against unauthorized opening. Inside the trailer, special lighting is installed, which facilitates work after dusk. Both the trailer lining and the floor are made of lightweight insulated and laminated panels. Special graphics can be printed on the walls with the company's logo or with information about the transport of drinking water. The trailer together with its technical solutions is protected under a utility model.

TECHNICAL SPECIFICATION

Manufacturer:	Proffico Sp. z o.o.,
Type:	Aquatrans,
Approval certificate:	yes, for a complete trailer,
Wheeled system with brake:	Knott or equivalent,
Material used:	chassis - galvanized black steel, grid - stainless steel, blinds - aluminium,
Total weight:	up to 1700 kg,
Number of boxes:	36 pieces,
Electrical installation:	LED 12/24V,
Chassis supports:	Yes.



REFERENCES

PACKAGERS of the AQUAPACK series were installed, among others in the following Waterworks companies:

- Municipal Waterworks in Radom,
- Waterworks in Starachowice,
- Waterworks in Ciechanow,
- Municipal Company in Kozienice,
- Municipal Waterworks in Rzeszow,
- Waterworks in Minsk Mazowiecki,
- Municipal Waterworks in Warsaw,
- Waterworks in Zagan,
- Waterworks in Wyszow,
- Waterworks in Gliwice,
- Waterworks in Wegrow,
- Municipal Waterworks in Chojnice.



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